

CGH LABELING FOR OLIGONUCLEOTIDE ARRAYS

Comparative genomic hybridization (aCGH) is widely accepted as the superior cytogenetic testing platform and is a powerful tool for detecting DNA copy number gains and losses associated with chromosome abnormalities. aCGH yields higher resolution, is easier to use and the results are less subject to interpretation as compared to the alternative approach of karyotype analysis of G-banded chromosomes. Oligonucleotide microarray-based CGH provides even higher resolution, and more comprehensive genomic information with regard to DNA copy number changes, even for formalin-fixed material. The superior performance of aCGH has led the American College of Medical Genetics to change its recommendation from karyotyping to chromosomal microarrays for the analysis of chromosomal aberrations.

Enzo Life Sciences offers aCGH labeling products that give the industry best performance for your important genomic studies whether it's the study of genetic disorders, the genomic analysis of cancers or other genomic aberrations. Among the reasons for the superior performance of Enzo's aCGH is the exceptional cyanine dye performance with proprietary labeling technology and the ability to detect significantly smaller genomic imbalances (2Kb) compared to G-banding (5Mb). Proprietary formulation of enzymes, buffers and protocol, coupled with optimized enzymatic labeling that consistently incorporates the dye-nucleotide between the two samples, produces the highest quality data using as little as 0.25 µg of genomic DNA, and without a need for pre-amplification.

Kits are available in 2 x 10 and 2 x 100 reactions, as well as 2 x 1000 reactions upon special request.

- Superior Performance (DLR scores, 0.09-0.12, exceeding industry standards)
- Ability to perform total genomic DNA analysis without amplification or complexity reduction
- Provides excellent dynamic analytical range for challenging and complex, heterogeneous samples
- QC benchmarked and validated using 4 x 180 high resolution arrays

Enzo aCGH Kits Deliver Superior Performance				
Metrics	Amount of Input DNA			Agilent QC
	0.25µg	0.50µg	2.5µg	
Signal Intensity (Green)	245	440	450	> 150
Signal Intensity (Red)	250	383	412	> 150
Signal to Noise (Green)	104	145	158	> 100
Signal to Noise (Red)	143	207	223	> 100
BGNoise (Green)	2.9	3.4	2.8	< 5
BGNoise (Red)	1.7	1.8	1.8	< 5
DLR Spread	0.119	0.1	0.088	< 0.2

TABLE 1: Results obtained using the Enzo Life Sciences' fluorescently labeled nucleotides typically surpass industry benchmark standard QC criteria for oligonucleotide-based CGH arrays.

For detailed product information visit us online:
www.enzolifesciences.com

Superior DLR Scores Provide High Quality Data Without Time Consuming Analysis

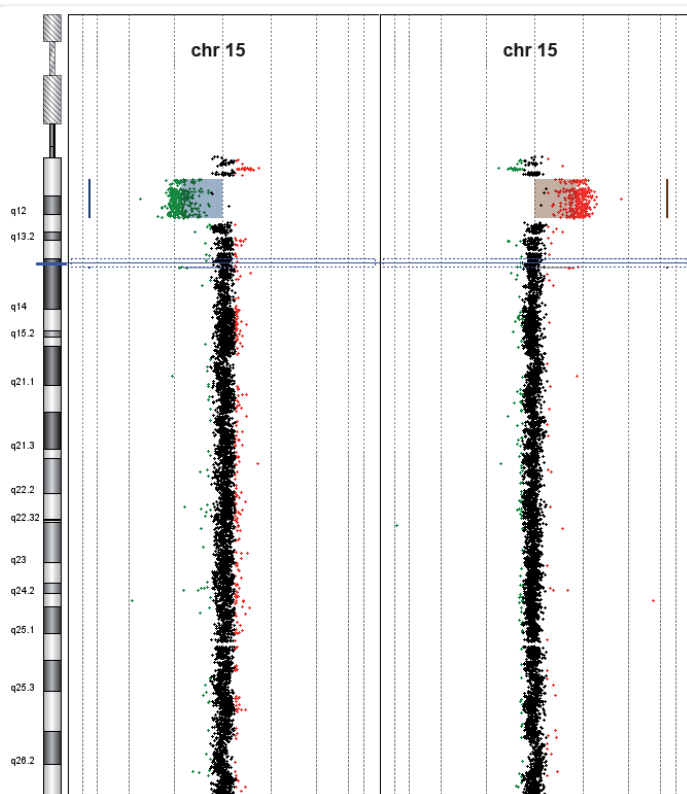


FIGURE 1: Analysis of syndromic DNA using an oligonucleotide microarray (Agilent 4 x 180K) demonstrated the characteristic deletion in 15q11.2-q13 (chromosome 15) found in patients with Prader-Willi syndrome

ORDERING INFORMATION

Product	Prod. No.	Size
CGH Labeling Kit for Oligo Arrays	ENZ-42671-K010	2 x 10 Reactions
CGH Labeling Kit for Oligo Arrays	ENZ-42671-K100	2 x 100 Reactions

Avoid wasting expensive microarrays and labeling kits on inferior biological specimens

BioScore™ Screening and Amplification Kit determines the quality of genomic DNA isolated from formalin-fixed paraffin-embedded (FFPE) tissue samples before use in array-based genome-wide copy number analysis (CGH) and other genomic profiling applications.

For Good or Excellent genomic DNA in limited quantities, the BioScore™ kit can be used to amplify the sample DNA to amounts sufficient for labeling by the CGH Labeling kits for microarrays.

RELATED PRODUCTS

Product	Prod. No.	Size
BioScore™ Screening & Amplification Kit	ENZ-42440	20 Reactions
CGH Labeling Kit for BAC Arrays	ENZ-42670	20 Reactions
Cyanine 3-dUTP	ENZ-42501	25 nmol
Cyanine 5-dUTP	ENZ-42502	25 nmol
Gold 550 dUTP	ENZ-42521	25 nmol
Red 650 dUTP	ENZ-42522	25 nmol

REFERENCES

- Ahn, et al. Validation and implementation of array comparative genomic hybridisations as a first line test in place of postnatal karyotyping for genome imbalance. (2010) *Molecular Cytogenetics* 3:9-17.
- Hills A, et al. MLPA for confirmation of array CGH results and determination of inheritance. (2010) *Molecular Cytogenetics* 3:19.
- Beunders G, et al. A triplication of the Williams-Beuren syndrome region in a patient with mental retardation, a severe expressive language delay, behavioral problems and dysmorphism. (2010) *Journal of Medical Genetics* 47: 271-275.
- Ali L, et al. Correlating array comparative genomic hybridization findings with histology and outcome in spitzoid melanocytic neoplasms. (2010) *Int J Clin Exp Pathol* 3(6):593-599.

Enzo and BioScore are trademarks of Enzo Life Sciences, Inc. Several of Enzo's products and product applications are covered by US and foreign patents and patents pending.



NORTH & SOUTH AMERICA

Global Headquarters
Enzo Life Sciences Inc.
10 Executive Boulevard
Farmingdale, NY 11735
Tel. 1-800-942-0430
Fax 631.694.7501
info-usa@enzolifesciences.com

EUROPE & ASIA

Headquarters
Enzo Life Sciences (ELS) AG
Industriestrasse 17
CH-4415 Lausen, Switzerland
Tel. +41 61 926 8989
Fax. +41 61 926 8979

Benelux

Enzo Life Sciences BVBA
Frankrijklei 33 – Bus 31
BE-2000 Antwerpen, Belgium
Tel. +32/0 3 466 04 20
Fax +32/0 3 466 04 29
info-be@enzolifesciences.com

France

Enzo Life Sciences (ELS) AG
Branch Office Lyon
13, avenue Albert Einstein,
F-69100 Villeurbanne, France
Tel. +33/0 472 440 655
Fax +33/0 437 484 239
info-fr@enzolifesciences.com

Germany

Enzo Life Sciences GmbH
Marie-Curie-Strasse 8
DE-79539 Lörrach, Germany
Tel. +49/0 7621 5500 526
Toll Free: 0800 6649518
Fax +49/0 7621 5500 527
info-de@enzolifesciences.com

UK & Ireland

Enzo Life Sciences (UK) LTD.
Palatine House
Matford Court
Exeter EX2 8NL, UK
Tel. 0845 601 1488 (UK customers)
Tel. +44/0 1392 825900 (overseas)
Fax +44/0 1392 825910
info-uk@enzolifesciences.com

For Local Distributors please visit our Website.

In ITALIA please contact:

Vinci-Biochem
Tel +39 0571 568 147
vb@vincibiochem.it
www.vincibiochem.it



www.enzolifesciences.com